

## **Division of Water State Fair model**

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**This year's Indiana State Fair is set for August 6-17. Department of Natural Resources (DNR) staff are planning many changes for their building at the state fairgrounds, but one popular exhibit hasn't changed a bit.**

**Well, maybe a *little* bit...**

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It thundered like a rage through town, this onslaught of water, toppling cars and submerging streets. Neighbors' kitchens disappeared in a rising pool of muck. Dams began slowly to give way.

It was every homeowner's nightmare – unless they've built on land not prone to flooding.

Luckily, the cars and streets and kitchens were only tiny models in a State Fair display at the Department of Natural Resources' (DNR) building.

"It's hard to portray in a model what a flood really looks like. It's not clean water. It's dirty, muddy, disgusting water," explained Marty Mann, who created the popular "flooding town" display some 15 years ago. "We started off using coffee (with creamer) for the flood water, because it was much more realistic.

But we had to use so much bleach afterward to keep the bacteria down, we were damaging the model... so now they just use clear water.”

Mann was a Division of Water engineer in 1987, when he conceived of a model that would show the effects of flooding. One goal of the DNR Division of Water is to help Hoosiers avoid potential flooding, and Mann saw that a wide audience could be reached through the DNR exhibit at the Indiana State Fair.

But it’s a long road from concept to reality. Wanting the exhibit to be as accurate as possible, Mann and his fellow engineers actually laid topographic maps over two large sheets of Styrofoam plastic foam to carve the terrain. They chose carefully the specific areas of Indiana to highlight: definite floodplain for “Wetville,” and high areas for “Drytown.” (For example, the channel that runs along the front of the model is, in reality, a creek in Brown County.)

“We put the two pieces of Styrofoam together to make an eight-foot-square model. It was actually boat dock material,” said Jim Kirk, now the Division of Water’s business administrator. “Then we covered it with anything we could find – sheet metal, pieces of aluminum foil, auto body filler... ”

Two months down the road and worrisomely behind schedule, Mann, Kirk and other division employees began working around the clock to finish the model by the opening of the fair.

Just in time, the crew finished. “It leaked like a sieve!” Mann chuckled. And yet the exhibit proved wildly popular, attracting attention from television crews and newspapers around the state. In May 1988, the exhibit even won a national award from the Association of State Floodplain Managers.

With popularity comes hard work, however. “(The original model) took several weeks of repair work every year,” recalls Bob Wilkinson of the division’s Surveying and Mapping Section.

Four years later, the seam between the two pieces of Styrofoam gave out. The crew took the worn-out plastic foam to a vendor, who reproduced the terrain in Fiberglas. In the excitement of refurbishing, they decided that fall colors might be nice for the model, and replaced the tiny green trees with orange and yellow.

Fair-time rolled around. Time for the test run. Staff pushed the button to start the pre-recorded narration for the display. “It was a Saturday morning in June,...” began the narrator. Oops! Indiana trees aren’t orange and yellow in June!

With no time to re-record the script, staff could do nothing but dub over the word “June,” replacing it with “October.”

“Which would have been fine,” reflected Kirk, “except that the original narrator’s voice was much deeper than that of anyone in the division. So the dubbed part sounded like, ‘It’s Saturday morning, <sup>early October</sup> ...’ People noticed. It drove the staff nuts, since they had to listen to it every 15 minutes. The following year we redid the script and the narration.”

Despite the narration flaw, the model captivated thousands of fairgoers on their way through the DNR building. Children clamored to watch the cars washing away down the tiny streets. Their parents learned more about floodways and flood fringes, and why they shouldn’t build houses there.

A decade and a half after the flooding model was conceived, interactive electronic displays are all the rage. The push is toward computer-generated graphics and virtual reality. Yet the Division of Water's old-fashioned model, with its tiny earthen dams and threatening thunderclaps, continues to fascinate (and educate!) Hoosier fairgoers year after year.

The Department of Natural Resources' Division of Water operates from a central office in downtown Indianapolis. The division is dedicated to water use and floodplain management, and accomplishes this goal in many ways: by keeping records on water wells, by evaluating applications for permits to build in a floodway, by providing guidance to those in flood-prone areas, by assessing groundwater (amount and quality), by helping create new conservancy districts and river basin commissions around the state, and by offering technical advice on a wealth of topics.

To reach the Division of Water, call 317-232-4160 during business hours, or access Web site <http://www.IN.gov/dnr/water/>.

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